



**United States Environmental Protection Agency  
Region 9 Laboratory**

**1337 S. 46th Street Building 201  
Richmond, CA 94804**

**Date:** 2/17/2012

**Subject:** Analytical Testing Results - Project R33911  
SDG: 12041B

**From:** Brenda Bettencourt, Director  
EPA Region 9 Laboratory  
MTS-2

**To:** Richard Fetzer  
US EPA Region 3, Eastern Response Branch  
3HS31

Attached are the results from the analysis of samples from the **Dimock Residential Groundwater** project. These data have been reviewed in accordance with EPA Region 9 Laboratory policy.

A full documentation package for these data, including raw data and sample custody documentation, is on file at the EPA Region 9 Laboratory. If you would like to request additional review and/or validation of the data, please contact Eugenia McNaughton at the Region 9 Quality Assurance Office.

If you have any questions, please ask for Richard Bauer, the Lab Project Manager at (510)412-2300.

**Analyses included in this report:**

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Dissolved Hydrocarbon Gases by GC



United States Environmental Protection Agency  
**Region 9 Laboratory**

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Phone:(510) 412-2300 Fax:(510) 412-2302

**Project Manager:** Richard Fetzer

**Project Number:** R33911

**Project:** Dimock Residential Groundwater

**US EPA Region 3, Eastern Response Branch**

**100 Gypsum Road**

**Stroudsburg PA, 18360**

**SDG:** 12041B

**Reported:** 02/17/12 14:33

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
HW48	1202031-01	Water	02/08/12 16:06	02/10/12 09:40
HW48z	1202031-02	Water	02/08/12 16:06	02/10/12 09:40
TB31	1202031-03	Water	02/08/12 07:45	02/10/12 09:40
HW23	1202031-04	Water	02/08/12 15:42	02/10/12 09:40
HW23-P	1202031-05	Water	02/08/12 15:39	02/10/12 09:40
TB32	1202031-06	Water	02/08/12 07:55	02/10/12 09:40
HW21	1202031-07	Water	02/09/12 10:53	02/10/12 09:40
HW21z	1202031-08	Water	02/09/12 10:53	02/10/12 09:40
TB33	1202031-09	Water	02/09/12 07:30	02/10/12 09:40
HW22	1202031-10	Water	02/09/12 10:42	02/10/12 09:40
HW22-P	1202031-11	Water	02/09/12 10:50	02/10/12 09:40
TB34	1202031-12	Water	02/09/12 07:35	02/10/12 09:40

**SDG ID 12041B**

Small amounts of methane were detected in the method blanks, field blanks and trip blanks. Field sample results are flagged as estimates if they do not exceed levels found in associated blanks by at least five times.

**Work Order(s)**

**1202031**



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## Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
<b>Lab ID: 1202031-01</b>						<b>Water - Sampled: 02/08/12 16:06</b>			
<b>Sample ID: HW48</b>						<b>Dissolved Gases by RSK-175</b>			
Methane		0.9	B1, C1, J	1.2	ug/L	B2B0053	02/12/12	02/12/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
<i>Surrogate: Acetylene</i>		115 %		66.4-153%		"	"	"	
<b>Lab ID: 1202031-02</b>						<b>Water - Sampled: 02/08/12 16:06</b>			
<b>Sample ID: HW48z</b>						<b>Dissolved Gases by RSK-175</b>			
Methane		0.8	B1, C1, J	1.2	ug/L	B2B0053	02/12/12	02/12/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
<i>Surrogate: Acetylene</i>		114 %		66.4-153%		"	"	"	
<b>Lab ID: 1202031-03</b>						<b>Water - Sampled: 02/08/12 07:45</b>			
<b>Sample ID: TB31</b>						<b>Dissolved Gases by RSK-175</b>			
Methane		1.0	B1, C1, J	1.2	ug/L	B2B0053	02/12/12	02/12/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
<i>Surrogate: Acetylene</i>		115 %		66.4-153%		"	"	"	
<b>Lab ID: 1202031-04</b>						<b>Water - Sampled: 02/08/12 15:42</b>			
<b>Sample ID: HW23</b>						<b>Dissolved Gases by RSK-175</b>			
Methane		3.6	B1, J	1.2	ug/L	B2B0053	02/12/12	02/12/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
<i>Surrogate: Acetylene</i>		115 %		66.4-153%		"	"	"	
<b>Lab ID: 1202031-05</b>						<b>Water - Sampled: 02/08/12 15:39</b>			
<b>Sample ID: HW23-P</b>						<b>Dissolved Gases by RSK-175</b>			
Methane		5.0	B1, J	1.2	ug/L	B2B0053	02/12/12	02/12/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
<i>Surrogate: Acetylene</i>		112 %		66.4-153%		"	"	"	
<b>Lab ID: 1202031-06</b>						<b>Water - Sampled: 02/08/12 07:55</b>			
<b>Sample ID: TB32</b>						<b>Dissolved Gases by RSK-175</b>			
Methane		0.9	B1, C1, J	1.2	ug/L	B2B0053	02/12/12	02/12/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
<i>Surrogate: Acetylene</i>		113 %		66.4-153%		"	"	"	
<b>Lab ID: 1202031-07</b>						<b>Water - Sampled: 02/09/12 10:53</b>			



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**Project Number:** R33911

**Project:** Dimock Residential Groundwater

**US EPA Region 3, Eastern Response Branch**

**100 Gypsum Road  
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**SDG:** 12041B

**Reported:** 02/17/12 14:33

## Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
<b>Lab ID: 1202031-07</b>						<b>Water - Sampled: 02/09/12 10:53</b>			
<b>Sample ID: HW21</b>						<b>Dissolved Gases by RSK-175</b>			
Methane		19		1.2	ug/L	B2B0053	02/12/12	02/12/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
<i>Surrogate: Acetylene</i>		116 %		66.4-153%		"	"	"	
<b>Lab ID: 1202031-08</b>						<b>Water - Sampled: 02/09/12 10:53</b>			
<b>Sample ID: HW21z</b>						<b>Dissolved Gases by RSK-175</b>			
Methane		8.2		1.2	ug/L	B2B0053	02/12/12	02/12/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
<i>Surrogate: Acetylene</i>		115 %		66.4-153%		"	"	"	
<b>Lab ID: 1202031-09</b>						<b>Water - Sampled: 02/09/12 07:30</b>			
<b>Sample ID: TB33</b>						<b>Dissolved Gases by RSK-175</b>			
Methane		0.8	B1, C1, J	1.2	ug/L	B2B0053	02/12/12	02/12/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
<i>Surrogate: Acetylene</i>		119 %		66.4-153%		"	"	"	
<b>Lab ID: 1202031-10</b>						<b>Water - Sampled: 02/09/12 10:42</b>			
<b>Sample ID: HW22</b>						<b>Dissolved Gases by RSK-175</b>			
Methane	RE1	17,000		160	ug/L	B2B0060	02/14/12	02/14/12	RSK-175/SOP325
Ethane		11		1.2	"	B2B0053	02/12/12	02/12/12	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
<i>Surrogate: Acetylene</i>		106 %		66.4-153%		"	"	"	
<i>Surrogate: Acetylene</i>		RE1	115 %	66.4-153%		B2B0060	02/14/12	02/14/12	
<b>Lab ID: 1202031-11</b>						<b>Water - Sampled: 02/09/12 10:50</b>			
<b>Sample ID: HW22-P</b>						<b>Dissolved Gases by RSK-175</b>			
Methane	RE1	13,000		190	ug/L	B2B0060	02/14/12	02/14/12	RSK-175/SOP325
Ethane		17		1.2	"	B2B0053	02/12/12	02/12/12	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
<i>Surrogate: Acetylene</i>		100 %		66.4-153%		"	"	"	
<i>Surrogate: Acetylene</i>		RE1	117 %	66.4-153%		B2B0060	02/14/12	02/14/12	
<b>Lab ID: 1202031-12</b>						<b>Water - Sampled: 02/09/12 07:35</b>			
<b>Sample ID: TB34</b>						<b>Dissolved Gases by RSK-175</b>			
Methane		0.8	B1, C1, J	1.2	ug/L	B2B0053	02/12/12	02/12/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325



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### Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
<b>Lab ID: 1202031-12</b>							<b>Water - Sampled: 02/09/12 07:35</b>		
<b>Sample ID: TB34</b>							<b>Dissolved Gases by RSK-175</b>		
<i>Surrogate: Acetylene</i>			116 %	66.4-153%		B2B0053	02/12/12	02/12/12	

### Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B2B0053 - RSK175 - Dissolved HC Gases										
Prepared & Analyzed: 02/12/12										
Dissolved Gases by RSK-175 - Quality Control										
Blank (B2B0053-BLK1)										
Methane	0.7	C1, J		1.2 ug/L						
Ethane	ND	U		1.2 "						
Ethene	ND	U		1.1 "						
Surrogate: Acetylene	75.9			"	66.5		114	66.4-153		
LCS (B2B0053-BS1)										
Methane	47			1.2 ug/L	44.1		107	70-130		
Ethane	92.9			1.2 "	83.2		112	77-137		
Ethene	87			1.1 "	78.3		111	78-138		
Surrogate: Acetylene	78.9			"	72.0		110	66.4-153		
Batch B2B0060 - RSK175 - Dissolved HC Gases										
Prepared & Analyzed: 02/14/12										
Dissolved Gases by RSK-175 - Quality Control										
Blank (B2B0060-BLK1)										
Methane	ND	U		1.2 ug/L						
Ethane	ND	U		1.2 "						
Ethene	ND	U		1.1 "						
Surrogate: Acetylene	76.9			"	66.5		116	66.4-153		
LCS (B2B0060-BS1)										
Methane	45.6			1.2 ug/L	44.1		103	70-130		
Ethane	90.2			1.2 "	83.2		108	77-137		
Ethene	84.5			1.1 "	78.3		108	78-138		
Surrogate: Acetylene	77.2			"	72.0		107	66.4-153		



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**Qualifiers and Comments**

J The reported result for this analyte should be considered an estimated value.

C1 The reported concentration for this analyte is below the quantitation limit.

B1 The concentration of this analyte found in this sample was less than five times the concentration found in the associated method blank.

U Not Detected

NR Not Reported

RE1, RE2, etc: Result is from a sample re-analysis.